

CLAIMS

1. A method for controlling one or more pumps in a pump sump with which each pump comprises a signal generator which switches on the pump, and each pump subsequent to its running if firstly automatically blocked by changing its switching value and depending on the running of the further pumps in the pump sump is released again.
2. A method according to claim 1, with which for each pump subsequent to its operation the fluid level threshold value at which the pump is started is firstly increased proceeding from an initial threshold value and depending on the running of the further pumps in the pump sump is reduced again.
3. A method according to claim 1 or claim 2, with which the fluid level threshold value for each pump is reduced in steps by a predefined value after the running of a further pump.
4. A method according to claim 3, with which the reduction of the fluid level threshold value is effected according to a geometric sequence.
5. A method according to claim 3 or 4, with which the fluid level threshold value after the operation of a further pump is in each case reduced to a level which is dependent on the number of the previously run pumps.
6. A method according to claim 5, with which the fluid level threshold value in each case is reduced to a level which corresponds to

$$x + \Delta x \times \frac{1}{n},$$

wherein x corresponds to the initial threshold value, Δx the amount by which the fluid level threshold value has been increased with respect to the initial threshold value, and n the number of previously run pumps.

7. A method according to one of the preceding claims, with which each pump comprises a means for detecting the number of pumps applied in operation in the pump sump.
8. A method according to claim 7, with which each pump by way of a sensor detects the running of a further pump and with this detects the number of applied pumps.

9. A method according to one of the preceding claims, with which in each pump there is provided a level sensor and in particular a pressure sensor.
10. A method according to one of the preceding claims, with which each pump after its own running sets the value n for the number of pumps to $n = 1$ and increases the value n after each running of a further pump by 1.
11. A method according to one of the preceding claims, with which the pump automatically detects a condition in which no further pumps are arranged in the pump sump, and automatically lifts their blocking.
12. A pump with a signal generator and a control means for activating the pump, wherein the control means comprises a means for detecting the operation of further pumps in the same pump housing, a blocking function which blocks the pump by changing its switching value and a release function which releases the pump again depending on the operation of further pumps.
13. A pump according to claim 12, with which the control means comprises a means for detecting the number of pumps in a pump sump.
14. A pump according to claim 12 or 13, with which the switch is a level switch and in particular is a pressure sensor.
15. A pump according to claim 14, with which the blocking function increases the threshold value of the level switch and the release function reduces the threshold value of the level switch.
16. A pump according to claim 15, with which the control means is designed in a manner such that the threshold value in each case after detecting the running of a further pump is reduced in steps by a predefined value.
17. A pump according to one of the claims 14 to 16, with which the means for detecting the operation of the further pumps in a pump sump accesses signals of the level switch.
18. A pump according to one of the claims 12 to 17, with which the control means is integrated into the pump.